

Claims

[c1] What is claimed is:

1.A method for reducing transmission power consumption of a cell phone, the cell phone comprising:

a transceiver module for transmitting signals to a base station and receiving signals transmitted from the base station; and

a processor for controlling operation of the cell phone; wherein when the transceiver module receives a receiving time data transmitted from the base station, the processor reads a receiving time interval from the receiving time data; if the processor transmits a connection signal to the base station through the transceiver module after the receiving time interval, the base station transmits another receiving time data to the cell phone.

[c2] the method comprising:

when the transceiver module receives the receiving time data transmitted from the base station, determining a virtual receiving time interval according to the receiving time interval in the receiving time data, the virtual receiving time interval being longer than the receiving time interval;

stopping signal transmission to the base station until the virtual receiving time interval is passed; and
resuming the connection signal transmission to the base station after the virtual receiving time interval.

- [c3] 2.The method of claim 1 wherein the virtual receiving time interval is an integer multiple of the receiving time interval.
- [c4] 3.The method of claim 1 wherein in determining the virtual receiving time interval according to the receiving time interval in the receiving time data, the receiving time interval is multiplied by a predefined ratio greater than one.
- [c5] 4.The method of claim 3 further comprising:
if the virtual receiving time interval determined is longer than a predefined maximum allowable receiving time interval, subtracting at least one receiving time interval from the virtual receiving time interval so that the virtual receiving time interval is shorter than the maximum allowable receiving time interval, and the time difference between the maximum allowable receiving time interval and the virtual receiving time interval is not longer than the receiving time interval.
- [c6] 5.The method of claim 1 wherein if the processor trans-

mits the connection signal to the base station through the transceiver module after an integer multiple of the receiving time interval rather than at the receiving time interval, the base station transmits another receiving time data to the cell phone.

[c7] 6.The method of claim 1 wherein the transceiver module is used for transmitting radio signals to the base station and receiving radio signals transmitted from the base station to the cell phone.

[c8] 7.A cell phone comprising:
a transceiver module for transmitting signals to a base station and receiving signals transmitted from the base station; and
a processor for controlling operation of the cell phone;
wherein when the transceiver module receives a receiving time data transmitted from the base station, the processor reads a receiving time interval from the receiving time data; if the processor transmits a connection signal to the base station through the transceiver module after the receiving time interval, the base station transmits another receiving time data to the cell phone; when the transceiver module receives a receiving time data from the base station, a virtual receiving time interval is determined by the processor according to the receiving time interval in the receiving time data such that the vir-

tual receiving time interval is longer than the receiving time interval; the transceiver module stops transmitting signals to the base station at the virtual receiving time interval after the virtual receiving time interval is determined and resumes to transmit the connection signal to the base station after the virtual receiving time interval is passed.

- [c9] 8.The cell phone of claim 7 wherein the virtual receiving time interval is an integer multiple of the receiving time interval.
- [c10] 9.The cell phone of claim 7 wherein the processor multiplies the receiving time interval by a predefined ratio greater than one to determine the virtual receiving time interval according to the receiving time interval in the receiving time data.
- [c11] 10.The cell phone of claim 9 wherein if the virtual receiving time interval determined by the processor is longer than a predefined maximum allowable receiving time interval, the processor subtracts at least one receiving time interval from the virtual receiving time interval so that the virtual receiving time interval is shorter than the maximum allowable receiving time interval, and the time difference between the maximum allowable receiving time interval and the virtual receiving time interval is

not longer than the receiving time interval.

[c12] 11.The cell phone of claim 7 wherein if the processor transmits the connection signal to the base station through the transceiver module after an integer multiple of the receiving time interval rather than at the receiving time interval, the base station transmits another receiving time data to the cell phone.

[c13] 12.The cell phone of claim 7 wherein the transceiver module is used for transmitting radio signals to the base station and receiving radio signals transmitted from the base station to the cell phone.